

REMARKS

Claims 1-7, 10-14, 22-26, 28, 31-35, 39-42, and 45-47 are pending in this application. By this Amendment, claims 13 and 26 are amended to incorporate the subject matter of claim 20 and claim 20 is canceled without prejudice to, or disclaimer of, the subject matter recited therein. In addition, claims 1, 12, 28 and 29 are amended. Support for the amendments can be found, for example, in paragraphs [0132], [0139] and [0216] of the specification. No new matter is added. Applicants respectfully request reconsideration and prompt allowance of the pending claims for at least the following remarks.

I. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-14, 18, 25 and 26 under 35 U.S.C. §103(a) over U.S. Patent No. 6,107,910 to Nysen (Nysen) in view of U.S. Patent N[o. 6,362,737 to Rodgers et al. (Rodgers) and U.S. Patent No. 5,940,006 to MacLellan et al. (MacLellan); rejects claims 28, 30-33, 35 and 39-42 under 35 U.S.C. 103(a) over Nysen, Rodgers, MacLellan and U.S. Patent Application Publication No. 2001/0040508 to Janning et al. (Janning); rejects claim 34 under 35 U.S.C. §103(a) over Nysen, Rodgers, MacLellan, Janning and U.S. Patent Application Publication No. 2001-0020897 to Takatori et al. (Takatori); rejects claims 20 and 22-24 under 35 U.S.C. §103(a) over Nysen, Rodgers, MacLellan, and U.S. Patent No. 6,792,276 to Butovitsch et al. (Butovitsch); and rejects claims 45-47 under 35 U.S.C. §103(a) over Nysen, Rodgers, MacLellan and U.S. Patent No. 6,839,560 to Bahl et al. (Bahl). The cancellation of claim 20 render the rejection of claim 20 moot. The rejections of the rest of the claims are respectfully traversed.

A. Claim 1

Nysen, Rodgers and MacLellan either alone, or in combination, fail to disclose each and every feature recited in independent claim 1. For example, Nysen, Rodgers and MacLellan fail to disclose "wherein said distance detecting portion is operable to detect said

distance between said interrogator and said endpoint device, on the basis of (i) a rate of change of the voltage of the charging portion, or a length of time during which the voltage of the charging portion has changed by a predetermined amount or (ii) a rate of change of the amount of electric energy, or a length of time during which the amount of electric energy has changed by a predetermined amount," as recited in claim 1.

The Office Action asserts that Nysen discloses a transponder comprising a distance measuring mechanism. It appears that the Office Action is asserting that apparatus 370 corresponds to the distance detecting portion of claim 1. Applicants respectfully disagree with this assertion.

Nysen discloses that apparatus 370 of Nysen is located at a particular position so that signals from a vehicle that are beyond a certain distance from the apparatus 370 are below the sensitivity level of the apparatus 370 (see Nysen, col. 35, lines 18-36). However, Nysen is silent regarding detecting the rate of change of the signal from the vehicle or the length of time a signal from the vehicle changes by a predetermined amount. Thus, Nysen fails to disclose the distance detecting portion as recited in claim 1. Furthermore, Rodgers and MacLellan fail to remedy this deficiency.

Dependent claims 2-7, 10, 45 and 46 depend from independent claim 1. Therefore, these claims are also patentable at least for their dependence on independent claim 1, as well as for the additional features these claims recite.

Applicants respectfully request withdrawal of the rejection.

B. Claim 12

Nysen, MacLellan and Rodgers fail to disclose each and every feature recited in claim 12. For example, none of these references disclose "a band dividing filter and a subcarrier intensity comparator; a distance detecting portion operable to detect a distance between said interrogator and said endpoint device on the basis of an intensity of a modulating signal with

which said reflected signal has been modulated in said endpoint device, intensity values of subcarrier signals obtained by the band dividing filter being compared with a plurality of threshold values by the subcarrier intensity comparator, based on which the subcarrier intensity comparator detects the distances between the interrogator and the endpoint devices, according to a stored data table indicative of a relationship between the intensity values of the subcarrier signals and the distances," as recited in claim 12.

As previously discussed for the rejection of claim 1, Nysen discloses an apparatus 370 positioned at a particular location so that signals from vehicles that are beyond a certain distance from apparatus 370 are below the sensitivity level of the apparatus 370. Therefore, signals above the threshold are merely registered by the apparatus 370 and signals below the threshold are not. In contrast, claim 12 requires a band dividing filter, a sub-carrier intensity comparator, and a comparison of the intensity values of signals. Nysen fails to disclose a band dividing filter, a sub-carrier intensity comparator, and a comparison of the intensity values of the signals. Thus, claim 12 is patentable over Nysen. Furthermore, MacLellan and Rodgers fail to remedy the deficiencies of Nysen.

Dependent claim 47 depends from independent claim 12. Therefore, dependent claim 47 is also patentable at least for its dependence on claim 12, as well as for the additional features claim 12 recites.

Applicants respectfully request withdrawal of the rejection.

C. Claims 13 and 26

In the rejection of claim 20, the Office Action agrees that Nysen, Rodgers and MacLellan fail to disclose "wherein said available-band determining portion is operable to determine said available frequency band so that an upper limit of said available frequency band is increased when said collision rate, said number of occurrences of collision or said amount of error data which has been detected by said communication-condition detecting

portion is equal to or larger than a predetermined first threshold value, and decreased when said collision rate, said number of occurrences of collision or said amount of error data is equal to or smaller than a predetermined second threshold value," as originally recited in claim 20. However, the Office Action asserts that Butovitsch remedies this deficiency.

The Office Action asserts that Butovitsch discloses the use of frequency bands based on the number of sub-carrier interference and threshold value before handing off the signal. However, Butovitsch discloses that the signal hand off is based on path loss, signal-to-noise ratio, received signal strength indicator, delay, bit error rate, frame error rate or any combination of those parameters (see Butovitsch, col. 6, lines 38-42). Butovitsch is silent regarding a collision rate, a number occurrences of a collision or an amount of error data. Thus Butovitsch fails to disclose the available-band determining portion of claim 13. Therefore, claim 13 is patentable over the applied references.

Claim 26 also recites this feature. Therefore, claim 26 is also patentable at least for the reasons discussed above for claim 13, as well as for the additional features claim 26 recites.

In addition, dependent claims 14 and 22-25 depend from independent claims 13 and 26. Therefore, these claims are also patentable at least for their dependence on claims 13 and 26, as well as for the additional features these claims recite.

Applicants respectfully request withdrawal of the rejections.

D. Claims 28 and 39

Nysen, Rodgers and MacLellan, either alone or in combination, fail to disclose each and every feature recited in claims 28 and 39. For example, Nysen, Rodgers and MacLellan fail to disclose "wherein said frequency-utilization-ratio setting portion is operable on the basis of one of the at least two discrete operating states of said battery cell detected by said power-source-information detecting portion to set, of a first distribution pattern in which the

individual frequency utilization ratio is relatively high in the relatively low frequency channels and a second distribution pattern in which the individual frequency utilization ratio is relatively high in the relatively high frequency channels, the first distribution pattern so that a center frequency of the distribution of the frequency utilization ratio of the subcarrier signal is lowered, when a supply voltage of said battery cell detected by the power-source-information detecting portion is lower than a predetermined threshold value," as recited in claim 28.

The Office Action agrees that Nysen fails to disclose the frequency-utilization ratio setting portion but asserts that MacLellan remedies this deficiency. However, MacLellan fails to disclose a first distribution pattern in which the individual frequency utilization ratio is relatively high in the relatively low frequency channels and a second distribution pattern in which the individual frequency utilization ratio is relatively high in the relatively high frequency channels as required by claim 28. Therefore, claim 28 is patentable over Nysen and MacLellan. Furthermore, Rodgers fails to remedy the deficiency of Nysen and MacLellan.

Independent claim 39 recites a similar feature as the one discussed above for claim 28. Therefore, claim 39 is also patentable over the applied references at least for similar reasons as discusses above for claim 28, as well as for the additional features claim 39 recites.

Dependent claims 31-35 and 40-42 depend from independent claims 28 and 39, respectively. Therefore, these claims are also patentable at least for their dependence on independent claims 28 and 39, as well as for the additional features these claims recite.

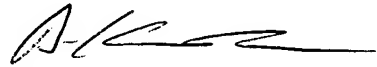
Applicants respectfully request withdrawal of the rejections.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time
Request for Continued Examination

Date: October 26, 2009

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